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Area Director
USDI-Bureau of Indian Affairs
P.O. Box 10
Phoenix, AZ 85001

Dear Area Director;

This letter serves as a biological evaluation for the FY 2007 Anderson Flat Dwarf Mistletoe Suppression Project proposed by Victoria Wesley, Supervisory Forester, San Carlos Forest Resource Program, San Carlos Apache Reservation. On July 20th, 2006 Mary Lou Fairweather, Plant Pathologist with this office, visited the proposed project area with Victoria.

There are 4 stands totaling 325 acres proposed for treatment. All stands are dominated by ponderosa pine, typically in groups of various size classes, which are intermixed with gambel oak and juniper. Stands 03 and 05 also have a component of southwestern white pine and Douglas-fir. A summary of stand exam survey data is presented in Table 1. This data was collected before the recent commercial timber harvest in which the most severely infected overstory trees were harvested. Volumes in square feet of basal area per acre (BA) range from 77 to 111. Although the data shows trees per acre (TPA) less than 9 inch in diameter at breast height (DBH) range from 170 to about 850, walk through examinations showed much higher densities. Average stand dwarf mistletoe ratings (DMR) are moderate to high, ranging from 0.5 to 1.5. Stands 01 and 02 have a greater component of sawtimber over poles, while stands 03 and 05 have a greater component of poles to sawtimber.

Table 1. Stand exam data summary table for sites proposed for dwarf mistletoe suppression treatment.				
Stand Number	Acres	BA	Trees per acre <9 inch DBH	DMR
01	146	80	450	0.5
02	79	80	170	1.5
03	38	111	850	1.5
05	62	95	362	1.3



The primary objective of the Anderson Flat project is to promote the growth of ponderosa pine by reducing the impacts of dwarf mistletoe infection. These treatments are approved under the San Carlos Apache Tribe's Management Plan, which allow areas to be sanitized by removing all visible dwarf mistletoe infection and providing improved growing conditions for healthy, uninfected trees. The proposed action is to cut all seedlings, saplings and pole sized trees <9" DBH with visible dwarf mistletoe infection on 325 acres. The targeted basal area in all stands is 45 BA. Slash will be lopped and scattered or hand/machine piled and burned to reduce fire hazard.

Land managers typically consider mistletoe infection levels when prescribing silvicultural treatments because of dwarf mistletoe's impact on the development of stands. Some of these affects are beneficial, (e.g., mistletoe infection directly and indirectly provides forage and nesting habitat); however, mistletoe also causes mortality and growth loss so the level of impact across a landscape is important. Silvicultural prescriptions are applied with regard to reduce the impact of dwarf mistletoe infection on achieving resource objectives.

After field checking present stand conditions and reviewing the proposed silvicultural prescription, we believe the management schemes presented here are biologically sound methods of controlling dwarf mistletoe infection. Based on stocking levels, infection levels, and stand composition, sanitation treatments appear to be an effective means of obtaining healthy trees on these sites. The reduced infection levels and decreased densities should lessen the impact of disease on residual trees. Latent infections are expected to be visible in about 5 years and will be managed in subsequent cutting cycles.

In addition to concurring with the proposed prescriptions, our office recommends that slash be generated between late summer and the end of December, if possible, in order to lessen the buildup of ips bark beetles. Slash piles should be placed in stand openings as much as possible and the largest diameter slash put on the outside of the pile to promote quick drying. Tepee style slash piles are made with branches and small-diameter slash in the middle and the larger diameter material on the outside.

If you have any questions regarding this evaluation, please call Mary Lou Fairweather at (928) 556-2075.

Sincerely,

/s/ John Anhold
JOHN ANHOLD
Arizona Zone Leader Forest Health

cc: Alicia DiValentino
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